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## Kathleen M. Shanley

Manager – Transmission Siting Tel: (860) 728-4527

April 26, 2022

Melanie Bachman, Esq. Executive Director Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

Re: Petition No. 1486 – 400/500 Lines Rebuild Project

Dear Ms. Bachman,

This letter provides an original and 15 copies of the response to the requests for information listed below:

Responses to CSC-02 Interrogatories, dated April 12, 2022 CSC-19.

Sincerely,

Kathleen M. Shanley

Manager - Transmission Siting

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Date Filed: April 26, 2022

**Request from: Connecticut Siting Council** 

## **Ouestion 19:**

Referring to interrogatory responses 5 and 7, it states the existing 69- kV 400 Line would be taken out of service during project construction and the new 400 Line installed along the edge of the ROW.

- a) Describe the rationale for installing the new 400 Line along the edge of the ROW where tree clearing is required instead of installing the new 400 Line in its current alignment towards the center of the maintained portion of the ROW.
- b) If a new transmission line is needed in the future, can the new future line be constructed along the ROW edge at that time? Explain.
- c) Why would the reconstruction of the 400 Line in or adjacent to the existing 400 Line alignment cause an expansion of the ROW if a future line was added? What specific clearance zones are required?

## **Response:**

Please see responses below:

a) As stated in the response to Interrogatory 7, the rationale for installing the new 400 Line along the edge of the ROW, instead of closer to its current alignment, is to prudently manage the limited space within the existing ROW to allow for the potential installation of a line in the future, even though there are no current plans for an additional line within this ROW.

The proposed alignment best allows for safe construction and operation of a new line in the ROW without the need for a future relocation of the 400 Line or the expansion of the ROW if a line is required to be constructed in this area in the future. For example, the proposed configuration and relocation of the 400 Line would allow the future construction and operation of a 345-kV transmission line (vertical configuration) or a 115-kV line (horizontal configuration). These options would not be feasible if the 400 Line were constructed in or near its current alignment due to insufficient remaining space in the ROW to meet the required clearance distances described in the response to part c), below.

b) As explained in greater detail in the response to part c), if a new transmission line is needed in the future and the 400 Line is constructed in or near its current alignment, there should be sufficient space in the ROW to accommodate the construction of a new 115- kV line in a vertical configuration between the 400 line and the edge of the ROW. However, the design options for a new line would be limited as there would be insufficient space in the existing ROW to accommodate a 115-kV line in a horizontal configuration or a 345-kV line and maintain the required clearance distances.

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c) If the 400 Line were to be constructed in or adjacent to the existing 400 Line alignment, an expansion of the ROW could be needed to provide suitable space to meet required clearance distances for a future (third) line.

Locating the 400 Line as proposed would optimize the efficient use of the ROW to accommodate the construction of either a future 115-kV line or a future 345-kV line. The standard distance from a vertical structure supporting a 345-kV line to the edge of the ROW is 35 feet. The standard distance from a vertical structure supporting a 345-kV line is 60 feet from a vertical structure supporting a 115-kV line, though 70 feet is preferred. The standard distance from a vertical structure supporting a 115-kV line must be greater than 25 feet from the edge of the ROW.

If the 400 Line were to be constructed in or near its current alignment between Hallville Junction and Tunnel Substation, these clearance distance standards would only allow the future construction of a 115-kV line in a vertical configuration only and would not allow the construction of a 115-kV line in a horizontal configuration. Nor would locating the 400 Line in or near its current position provide sufficient available space to allow the construction of a 345-kV line in the ROW without acquiring additional rights. Between Hallville Junction and Ledyard Junction, it might be possible to install an additional 115-kV line in a horizontal configuration, but not a 345-kV line, without acquiring additional rights, if the 400 Line were located in or near its current position.